

PATENT

Application No.: 10/038,177
Attorney Docket No.: 42697.122US2
Amdt. dated November 18, 2003
Reply to Office Action of July 30, 2003

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-52 (Cancelled)

Claim 53 (Currently Amended): A method for synthesizing cDNA ~~molecules, said method comprising combining an mRNA molecule longer than 600 nucleotides in length by enhancing the processivity of a reverse transcriptase which comprises transcribing RNA with a reverse transcriptase and in the presence of a single-strand binding protein at a concentration sufficient to promote completed reverse transcription of mRNA molecules greater than 600 nucleotides in length.~~ under conditions to produce one or more cDNAs longer than about 600 nucleotides.

Claim 54 (Original): The method of claim 53, wherein the single-strand binding protein is present at a concentration of at least 0.0061 mM.

Claim 55 (Original): The method of claim 53, wherein the single-strand binding protein is present at a concentration of at least 0.015 mM.

Claim 56 (Original): The method of claim 53, wherein the single-strand binding protein comprises T4 gp32.

Claim 57 (Original): The method of claim 53, wherein the single-strand binding protein comprises the single strand binding protein of *Escherichia coli*.

Claim 58 (Currently Amended): The method of claim 53, wherein the cDNA synthesis ~~reaction~~ is carried out at a temperature of no more than 42 degrees Celsius.

Claims 59-66 (Cancelled)

PATENT

Application No.: 10/038,177

Attorney Docket No.: 42697.122US2

Amdt. dated November 18, 2003

Reply to Office Action of July 30, 2003

Claim 67 (Currently Amended): The method of claim ~~66~~ 80, wherein the primer is present at a concentration of no greater than 0.02 μ M.

Claim 68 (Currently Amended): The method of claim ~~66~~ 80, wherein the mRNA molecules are reverse transcribed from no more than 100 ng of total RNA.

Claim 69 (Currently Amended): The method of claim ~~66~~ 80, wherein the mRNA molecules are reverse transcribed from no more than 10 ng of total RNA.

Claim 70 (Currently Amended): The method of claim ~~66~~ 80, wherein the primer comprises a polythymidine sequence.

Claim 71 (Currently Amended): The method of claim ~~66~~ 80, wherein the primer comprises random hexamers.

Claim 72 (Currently Amended): The method of claim ~~66~~ 80, wherein the primer comprises a promoter sequence for an RNA polymerase.

Claim 73 (Currently Amended): The method of claim ~~66~~ 72, wherein the promoter sequence is from bacteriophage T7.

Claim 74 (Currently Amended): The method of claim ~~66~~ 80, wherein the single-strand binding protein is present at a concentration of at least 0.0061 mM.

Claim 75 (Currently Amended): The method of claim ~~66~~ 80, wherein the single-strand binding protein is present at a concentration of at least 0.015 mM.

Claim 76 (Currently Amended): The method of claim ~~66~~ 80, wherein the single-strand binding protein comprises T4 gp32.

PATENT

Application No.: 10/038,177

Attorney Docket No.: 42697.122US2

Amdt. dated November 18, 2003

Reply to Office Action of July 30, 2003

Claim 77 (Currently Amended): The method of claim ~~66~~ 80, wherein the single-strand binding protein comprises the single strand binding protein of *Escherichia coli*.

Claim 78 (Currently Amended): The method of claim ~~66~~ 80, wherein the cDNA synthesis ~~reaction~~ is carried out at a temperature of no more than 42 degrees ~~celsius~~ Celsius.

Claim 79 (Currently Amended): The method of claim ~~66~~ 80, wherein said mRNA molecule belongs to a complex population of mRNA molecules comprising mRNA molecules longer than 600 nucleotides in length.

Claim 80 (New): The method of claim 53, wherein transcribing RNA comprises incubating said RNA with a primer that hybridizes to one or more mRNA molecules among said RNA to reverse transcribe any mRNA present and produce one or more cDNAs longer than 600 nucleotides and complementary to the transcribed mRNA.